

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims

in the application:

Listing of Claims:

1. (Currently Amended) ~~Heating~~A heating device (2) for a fluid line (5, 50), ~~in particular for a crankcase venting system of an internal combustion engine, with comprising:~~

a heating element (3, 7) and with;

a holding device (4), ~~through which~~ adapted to couple the heating element can be fitted to the fluid line, ~~characterised in that the heating device (2) exhibits;~~ and

a projection (9), ~~in which~~ adapted to receive the heating element (3, 7) can be held and which is adapted to be inserted in a well in the fluid line, wherein (20) with a well wall (14, 20', 30') of the fluid line (5, 50) ~~adjacent is contiguous to the~~ an inner space (15) of the fluid line (5, 50).

2. (Currently Amended) ~~Heating~~The heating device (2) according to Claim ~~claim~~ 1; ~~characterised in that wherein the holding device is provided with comprises~~ an elastic clamping section (10), ~~which is arranged at least partially to abut against~~ contiguous to the an outer wall (14) of the fluid line.

3. (Currently Amended) ~~Heating~~The heating device (2) according to Claim ~~claim~~ 2, ~~characterised by further comprising~~ a recess (11) formed between the projection (9) and the clamping section (10) and ~~in which, wherein the recess at least partially, receives~~ the outer wall (14) of the fluid line (5) ~~can be accommodated.~~

4. (Currently Amended) ~~Heating~~ The heating device according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that wherein~~ the heating device (2) ~~is formed as a module unit, in which the heating element (3) is preassembled in the holding device (4).~~

5. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that wherein~~ the heating element (3) ~~is formed in the shape of a plate.~~

6. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that wherein:~~
the projection (9) ~~exhibits~~ comprises a polygonal cross-section substantially transverse to the mounting direction; and
~~whereby~~ a flat side of the polygon faces ~~an~~ the inner space of the fluid line (15).

7. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that~~ further comprising the heating element (3) ~~comprises~~ a PTC heating element (7).

8. (Currently Amended) ~~Heating~~ The heating device (2) according to Claim claim 7, ~~characterised in that~~ further comprising:
the PTC heating element (7) ~~is arranged between~~ at least two electrically conducting contact plates wherein the PTC heating element is at least partially positioned between the conducting contact plates (6a, 6b), which continue in;
a plug connector; and

at least two connector contact lugs (8a, 8b) coupling the conducting contact plates to the plug connector.

9. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 8, ~~characterised in that~~ wherein the projection (9) is formed by at least one electrically conducting contact plate (6a, 6b).

10. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 8, ~~characterised in that~~ wherein at least one side of the projection (9) is formed by a contact plate, (6a, 6b), ~~which is designed so that it can be brought directly into contact~~ configured to be contiguous with a well wall of the fluid line.

11. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 8, ~~characterised in that~~ wherein at least one contact plate (6a, 6b) ~~forms~~ comprises a spring section (46), ~~which, with the projection (9) inserted into the well, is designed~~ configured to elastically press against the heating element ~~elastically deformably through the~~ and a well wall of the fluid line.

12. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that~~ further comprising the holding device (4) is provided with at least one guiding element (12), ~~which is designed~~ configured to guide the holding device (4) in an insertion direction (M) when when coupling the holding device is pushed into the fluid line ~~(5).~~

13. (Currently Amended) ~~Heating~~ The heating device (2) according to ~~one of the above mentioned claims~~ claim 1, ~~characterised in that~~ wherein the holding device (4) is ~~produced~~ fabricated from an electrically insulating material.

14. (Currently Amended) ~~Kit~~ A kit for a heating module (1) for fluid lines, ~~in particular for crankcase venting systems of an internal combustion engine, with comprising:~~

a tubular fluid line (5, 50) ~~and with:~~ and

a heating device (2) mounted on the fluid line, ~~characterised in that the heating device (2) is arranged according to one of the above mentioned claims. wherein~~ the heating device comprises:

a heating element;

a holding device, adapted to couple the heating element to the fluid line;

and

a projection, adapted to receive the heating element and be inserted in a well in the fluid line, wherein a well wall of the fluid line is contiguous to an inner space of the fluid line.

15. (Currently Amended) ~~Kit~~ The kit according to ~~Claim~~ claim 14, ~~characterised in that~~ further comprising also a thermally conducting element (51) is included, ~~which is arranged for accommodation in~~ adapted to couple to the fluid line (5, 50).

16. (Currently Amended) ~~Kit~~ The kit according to ~~Claim~~ claim 15, ~~characterised in that~~ wherein the thermally conducting element (51) at least partially surrounds an inner space (15) of the fluid line (5, 50), ~~at least partially.~~

17. (Currently Amended) ~~Fluid~~ A fluid line, (5, 50), ~~in particular for a crankcase venting system of an internal combustion engine, with comprising:~~

~~a tubular line section, which is surrounded by;~~

~~an inner space; and~~

~~an outer wall (14), having characterised by a well (20), and at least one well wall (14, 20', 30') of which is adjacent to contiguous to the inner space (15, 31, 32) of the fluid line (5) and which is designed for accommodating through insertion a heating element and configured to receive a holding device by which the coupled to a heating element can be mounted on the fluid line.~~

18. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~Claim claim 17, characterised in that~~ wherein the well is formed ~~between~~ comprises an inner surface facing the inner space (15) of the fluid line (5, 50) and an outer surface of the outer wall (14) facing outwards.

19. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~Claim claim 17 or 18, characterised in that~~ wherein a portion of the outer wall contiguous to the well (20) is arranged in a region in which the wall thickness of the outer wall (14) is increased thicker with respect to the surrounding regions.

20. (Currently Amended) ~~The fluid~~ Fluid line (5, 50) according to ~~one of the Claims claim 17 to 19, characterised in that~~ wherein the a well (20) opens opening in is substantially a radially parallel direction to the tubular line section.

21. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~one of the Claims claim 17 to 20 characterised in that~~ wherein the a well (20) opens opening

is substantially in the longitudinal direction of the fluid line longitudinally parallel to the tubular line section (5, 50).

22. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~one of the Claims claim 17 to 21, characterised in that~~ operable to allow fluid flow contiguous to the well wall, wherein the well walls extend wall extends into the interior (15) an interior of the fluid line (5, 50) and in operation have fluid flowing around them.

23. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~Claim claim 17, characterised in that~~ the well walls form wall comprises a projection protruding into the inner space interior (15).

24. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~Claim claim 17, characterised in that~~ wherein the well walls form wall comprises a partition (32), which subdivides dividing the interior inner space (15) of the fluid line piece in flow regions separated from one another.

25. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~one of the Claims claim 17 to 24, characterised in that~~ further comprising the well (20) exhibits a quadrangular section on the well in the a direction substantially transverse to the mounting direction, whereby wherein at least one flat side of the quadrangle faces the inner space (15).

26. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~one of the Claims claim 17 to 25, characterised in that~~ wherein the inner surface of the outer wall (14) facing the inner space of the fluid line exhibits has at least one a flat section (18).

27. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the Claims claim 17 to 26, ~~characterised in that wherein~~ the outer wall (14) exhibits has at least one guide element (21) by which the heating device can be guided ~~in an insertion direction (M) when coupling to the fluid line.~~

28. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to Claim claim 27, ~~characterised in that wherein~~ the guide device element (21) comprises at least one groove.

29. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the Claims claim 17 to 28, ~~characterised in that further comprising the outer wall (14) exhibits at least one weakened region, wherein (21) by which a local limited deformation of the well (20) can be realised~~ realized by the action of application of a force (F).

30. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to Claim claim 29, ~~characterised in that wherein~~ the weakened region (21) is formed groove shaped.

31. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to Claim claim 29 or 30, ~~characterised in that wherein~~ the weakened region (21) is formed in the outer surface (19) of the outer wall (14).

32. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the Claims claim 29 to 31, ~~characterised in that wherein~~ the weakened region (21) overlaps the well (20) in the a substantially radial direction.

33. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the ~~Claims~~ claim 17 to 32, ~~characterised in that wherein~~ the fluid line (5, 50) is ~~produced~~ fabricated from a thermally conducting metallic material.

34. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the ~~Claims~~ claim 17 to 33, ~~characterised in that wherein~~ the well (20) is separated from the inner space of the fluid line by the ~~external~~ outer wall (14) from the inner space (15) of the fluid line.

35. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the ~~Claims~~ claim 17 to 34, ~~characterised in that wherein~~ the fluid line (5, 50) is formed as an angled element in which the fluid flow direction in operation can be deviated by a certain angle.

36. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to ~~Claim~~ claim 35, ~~characterised in that wherein~~ the well (20) is arranged in a front surface of the fluid line (5, 50).

37. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the ~~Claims~~ claim 17 to 36, ~~characterised in that wherein~~ the fluid line (5, 50) is formed as a tubular element (5).

38. (Currently Amended) ~~Fluid~~ The fluid line (5, 50) according to one of the ~~Claims~~ claim 17 to 36, ~~characterised in that wherein~~ the fluid line (5, 50) is formed as a valve (50).

39. (Currently Amended) ~~Kit~~ A kit for a heating module for fluid lines, (5, 50), ~~in particular for crankcase venting systems of an internal combustion engine,~~ with a tubular fluid line and with a heating device which can be mounted on the fluid line, ~~characterised in that wherein~~ the fluid line (5, 50) is formed according to one of the Claims 17 to 38 comprises a tubular line section, an inner space, and an outer wall having a well and at least one well wall contiguous to the inner space and configured to receive a holding device coupled to a heating element.

40. (Currently Amended) ~~Heating~~ A heating module with a fluid line (5, 50) ~~forming having~~ an outer wall (14) and an inner space, ~~in particular for the crankcase venting of an internal combustion engine,~~ and with a heating device (2) mounted on the fluid line (5, 50), the said heating device comprising a heating element (3) ~~acting on the outer wall,~~ a projection, (14) and a holding device (4) holding the heating element (3) on the fluid line (5, 50), ~~characterised in that, wherein,~~ in the fluid line (5, 50), has a well (20) is formed, in which that receives a the projection (9) of the heating device (2) holding the heating element (3) is accommodated and of which at least one well wall (14, 20', 30) borders is contiguous to the inner space (15, 31, 32) of the fluid line (5, 50).

41. (Currently Amended) ~~Heating~~ The heating module (1) according to Claim claim 40, ~~characterised in that wherein~~ the holding device (4) is held by repeated positive locking on the fluid line (5, 50).

42. (Currently Amended) ~~Heating~~ The heating module (1) according to Claim claim 40 or 41, ~~characterised in that wherein~~ the a clamping section is latched into the well on the fluid line in the insertion direction of the projection.

43. (Currently Amended) ~~Heating~~ The heating module (1) according to ~~one of the Claims~~ claim 40 to 42, ~~characterised in that~~ wherein the outer wall (14) is plastically deformed at least in the region of the well (20).

44. (Currently Amended) ~~Method~~ A method for the manufacture of a heating module for a fluid line, having an inner space and an outer wall, ~~in particular for crankcase venting in an internal combustion engine, comprising the following method step:~~

~~▲ Insertion~~ inserting of a heating element (3, 7) arranged on a projection (9) of a heating device (2) in a well (20) adjacent contiguous to ~~an the~~ inner space of the fluid line (15, 50) in the and outer wall of the fluid line.

45. (Currently Amended) ~~Method~~ The method according to ~~Claim~~ claim 44, further ~~comprising the following method step:~~

~~▲ Clamping the~~ clamping a holding device firmly to the outer wall.

46. (Currently Amended) ~~Method~~ The method according to ~~Claim~~ claim 44 or 45, further ~~comprising the following method steps:~~

~~▲ Preassembly of~~ preassembling the heating element and holding device to form a module unit; and

~~▲ Mounting of~~ mounting the module unit on the fluid line.

47. (Currently Amended) ~~Method~~ The method according to ~~one of the Claims~~ claim 44 to 46, further ~~comprising the following method step:~~

~~▲ Deformation of~~ deforming the fluid line with the inserted heating element and ~~simultaneous~~ simultaneously pressing of the heating element in the well.

Express Mail No.: EV530944546US
International Application No.: PCT/EP2003/006814
International Filing Date: June 27, 2003
Preliminary Amendment Accompanying
Substitute Specification

48. (New) The heating device according to claim 1 wherein the fluid line is for a crankcase venting system of an internal combustion engine.
